

Patent Claims
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ART 34 AMDT

Method for the Electrically Conductive Connection of Lacquered Wires

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1. A method for the electrically conductive connection of at least two wires provided with a insulating lacquer (lacquered wires),
characterized in that
10 the lacquered wires are at least partially enclosed, at their regions (22, 24, 26, 32, 36) which are to be connected, by an electrically conductive material and that the wires are subsequently fixedly connected, with simultaneous breaking away of the insulating lacquer, by an ultrasound effect.

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2. A method according to claim 1,
characterized in that
a plurality of lacquered wires (46, 48, 52, 54, 56) and at least one uninsulated
conductor (64), such as stranded wire, are partially enclosed by the material.

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3. A method according claim 1 or 2,
characterized in that
as the electrically conductive material, one in the form of a sleeve or a cup is
employed.

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4. A method according to at least one of the preceding claims,
characterized in that
an inherently rigid material is employed as the electrically conductive material.

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5. A method according to at least one of the preceding claims,
characterized in that

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a flexible material, such as mesh, is employed as the electrically conductive material.

6. A method according to at least one of the preceding claims,
characterized in that
5 the material is connected in a shape defining manner with at least two, preferably
more, lacquered wires.
7. A method according to at least one of the preceding claims,
characterized in that
10 the wires connected to the material and to one another at least fixedly are connected as
a unit to an electrical conductor, such as a carrier (38), by means of ultrasound
welding.
8. A method according to at least one of the preceding claims,
15 characterized in that
as the lacquered wire, one with a conductor comprising aluminum and/or copper is
employed.
9. A method according to at least one of the preceding claims,
20 characterized in that
as the electrically conductive material, one consisting of or containing copper is
employed.
10. A method according to at least one of the preceding claims,
25 characterized in that
for applying the ultrasound, one or more work tools of an ultrasound welding machine
are employed.
11. A method according to at least one of the preceding claims,
30 characterized in that
a sheet metal strip is employed as the electrically conductive material at least partially

surrounding the lacquered wires (46, 48, 52, 54, 56) and any other conductor present.

A method according to at least one of the preceding claims,
characterized in that

a sheet metal strip formed as a crimp (44) is employed.

13. A method according to at least one of the preceding claims,
characterized in that

a single ply or multiple ply strip material is wound around the lacquered wires as the
electrically conductive material.

14. A method according to at least one of the preceding claims,
characterized in that

as the electrically conductive material surrounding the lacquered wires and any further
electrical conductor present, a preformed open receptacle (58, 60, 62), in particular
with a U-, circularly or trapezoidally-shaped cross-section, is employed.